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ABSTRACT

This paper is intended to assist teachers in examining and altering their own teaching practices and in transforming the classroom from a place of "dull sameness" to an environment where excitement reigns and student growth is at the forefront. The teaching strategies outlined were chosen for three criteria: active student involvement, collaboration, and enhancing thinking skills. A description of each strategy is provided, including a rationale for its use suggesting when its use may be appropriate, explaining how to use it, and providing resources for further information about the strategy. Following the overview, a specific lesson plan using the strategy is provided. The format, identified for each lesson, includes: (1) a perennial problem, which states the curriculum lesson in general; (2) a practical problem, which identifies an action that can help address the perennial problem; (3) objectives, which define what the learners have to do to demonstrate their attainment of the intent of the lesson; (4) debriefing, which summarizes the lesson and provides learners with the opportunity to discuss content and the learning process; and (5) evaluation options, based on content and the learning process; application objectives, and adapted to the needs of the learners. The strategies covered include: (1) Concept Containment Strategy; (2) Games and Simulations Strategy; (3) Synectics Strategy; and (4) Moral Development Strategy. (ND)

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# Alternative Teaching Strategies for the 1990s

## American Vocational Association

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# TEACHING STRATEGIES TO FACILITATE LEARNING

**Educational reform efforts across the country are proposing numerous changes for public school teaching. Many of the suggestions for change recommend that teachers instruct students differently, getting them actively involved and promoting their growth as thinkers and collaborators. This AVA monograph is written to assist teachers in examining and altering their own teaching practices and transforming the classroom from a place of "dull sameness" (Goodlad, 1984) to an environment where excitement reigns and student growth is at the forefront.**

**In teaching, it is no longer enough to just "know" one's subject and to "deliver" it to students. Teaching is a complex act requiring expertise relative to content, students, and the myriad of alternatives available to bring the two together in meaningful ways. Teachers must become high-level problem-solvers who can move dynamically among instructional frameworks to create environments where all students can succeed. The expectation that teachers "know all they need to know" upon graduation is an illusion ascribed to by only the naive and ill-informed. Growth in teaching is a lifelong process which provides teachers with the challenge and excitement to stay young and fresh and optimistic.**

The teaching strategies outlined in this monograph were chosen for three criteria. First, active student involvement is critical to growth. Whether teachers use direct instruction strategies or experiential alternatives, students must remain either overtly or covertly involved. When the content of learning is meaningful and when students are drawn into the activity, learning is more probable.

The second criteria for choosing these strategies was their focus on collaboration. Student success in school and in life is highly dependent upon their abilities to work collaboratively with others. The competitive world is changing to a world where we must work together to create "products" which are far superior to what individuals working alone can accomplish.

The final criteria was an emphasis on enhancing thinking skills. The school's role in nurturing thinking skills is of paramount importance. Life is full of decisions, and students need to develop the capabilities to approach problems systematically and to consider alternatives logically and creatively.

For each strategy, the authors present a two- to three-page overview describing the approach, providing a rationale for its use, suggesting when its use may be appropriate, explaining how to use it, and providing resources for further information about the strategy. Following the overview, a specific lesson plan using the strategy is provided. It is our hope that the examples in this monograph will help teachers to discover and rediscover teaching alternatives which will be rejuvenating to them, their students, and their classrooms.

# GUIDE TO LESSON CATEGORIES

The lessons that follow are each formatted identically. For ease in locating the category in any lesson, each has its own symbol. Lesson categories are described below.

## Perennial Problem

A Perennial Problem is one faced over and over by successive generations of families. Perennial Problems include enduring questions about how to improve the quality of families. Posing curriculum lessons as Perennial Problems avoids focusing on time-specific problems.

## Practical Problem

A Practical Problem identifies an action that can help address the Perennial Problem. This action is born of reasoned thought and sound judgment. Posing a Practical Problem in curriculum is a way of focusing on both affective and cognitive processes, on both knowledge and values, on life experiences, and on thought and action. The Practical Problem approach can be used to help analyze a teaching situation, identify and address an education dilemma, generate and critique alternatives, and make value judgments.

## Objectives

An objective describes or defines what the learners have to do to demonstrate their attainment of the intent of the lesson.

## Debriefing

Debriefing Strategies are options for summarizing the lesson. Learners need the opportunity to discuss the content learned and the process in which they learned it.

## Evaluation Options

Evaluation Options for each lesson are based on the lesson's content, process, and application objectives. These options are meant to be adapted to meet the needs of the learners.

# CONCEPT ATTAINMENT STRATEGY

- Jerome Bruner, Jacqueline Goodnow, George Austin

## What is the Concept Attainment Strategy?

The challenge for students in a concept attainment activity is to distinguish the concept, based on comparing and contrasting positive and negative examples. The activity can be teacher controlled, with the teacher presenting the examples to the students, placing them in either YES or NO categories, or it can be more student controlled, with the students active in manipulating the examples.

## Why Use the Concept Attainment Strategy?

Learning concepts using this strategy not only enables students to learn specific content, but also they learn to discriminate among attributes, think more critically, approach problems more systematically, generate and test hypotheses, and learn from their mistakes. Concept analysis can be highly engaging for students. One teacher comments: "*This model has many attributes. The students learn thinking strategies and the teacher can observe these in motion. More importantly, the students become enthusiastic about what is happening in class and are able to focus their attention well.*"

## When to Use the Concept Attainment Strategy

Conceptual learning is at the heart of schooling, and teachers are continually structuring lessons to help students understand the key concepts inherent in the subject matter. Whenever the goals of the class revolve around identifying the key character-istics (essential attributes) of concepts, discriminating between different concepts, and determining the rules that surround concepts, concept attainment is appropriate. Often teachers use concept attainment lessons to either introduce or review concepts. The first few times that teachers use concept attainment activities, typically they need to plan ahead to make certain that the concept is clear, the examples and non-examples appropriately discriminate the concept, and that the rule is understandable. However, once teachers and students become comfortable with the strategy, often concept attainment activities can be quickly developed with little prior planning.

## How to Use the Concept Attainment Strategy

### PLANNING

In planning for a concept attainment lesson, the teacher essentially goes through the same mental process which they will later ask of their students, and this experience is extremely valuable in the subsequent conduct of the activity. Because teachers have to "stretch" their thinking in the development of the concept attainment lesson, they frequently become more sensitive to student frustrations and thinking processes. The obvious first step in planning is to determine the concept (e.g., democracy, mammals, alliteration, consumerism, etc.). Second, the teacher determines the critical attributes of the concept. Third, the teacher selects and orders examples and non-examples (10 each), making sure that every positive example contains all critical attributes. (Teachers should beware of having parallel concepts running in the YES and NO columns since this can be confusing to students.) Finally, the rule is stated. The following format structures the planning process.

Name of Concept _____

Essential Attributes _____ _____

_____ _____

| Examples | Non-Examples |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

Rule _____

_____

## IMPLEMENTATION

In order to ensure a smooth implementation of the concept attainment activity, the teacher should establish guidelines. For example: *"There are two columns on the board, a YES column where I will place examples of the concept and a NO column where I will place non-examples. First, I'll present 3 clues (a YES, a NO, and another YES). After that, I'll present either examples or non-examples of the concept, asking you to place them in the correct column. Concentrate on the YES column, looking for similarities and compare the items in the YES column to those in the NO column. If you think you know the concept, please don't blurt it out. Instead, volunteer to guess the next clue or offer another example or non-example. After we have finished the activity, I will ask someone to state the rule which governs the concept."*

If students are new to the concept attainment activity (and sometimes just for fun), warm-up activities are helpful. Placing students physically in the YES or NO column based on concepts, such as striped shirts, glasses, brown eyes, etc., can help them to become attuned to the conceptual thinking required.

As the activity begins, the teacher presents examples and non-examples (which might be words written on cards, pictures, objects, etc.) consecutively. The first three should alternate--example, non-example, example); the remaining are ordered randomly. The teacher should be careful not to give the concept away by marking or color-coding cues. In most cases, the examples of a concept have different levels of difficulty, and arranging the clues from *medium*, to *hard*, to *easy* enables the teacher to challenge the students who get the concept quickly (with a more difficult clue) or encourage students who are becoming frustrated (with an easier clue).

As the activity progresses, teachers should be alert to the frustration levels of their students. Some frustration is important since it challenges students to think. However, if students "drop out" or seem ready to give up, teachers may want to offer some clues. If there are a few students who appear to be "blocked" (and most of the class knows the concept), it is probably wise to have a student verbalize the rule and terminate the activity. The ensuing discussion of the thinking process often helps them to analyze where they became confused. Another experience which teachers sometimes encounter is students who can correctly categorize the examples and non-examples, yet are unable to identify the concept or state the rule. In such cases, the teacher needs to help students by offering clues to help them "talk through" what they learned. Stating the rule is an important step in the activity and should not be skirted.

## DEBRIEFING

As important as the concept itself is, it is equally important that students analyze their thinking strategies--what worked and what didn't. Getting students to analyze their thinking strategies is not an easy task. Sometimes they don't have the vocabulary to describe what occurred in their thinking, and they may become easily discouraged in trying to verbalize their ideas. Some questions which can help students in their analyses are: "At which example did you know the concept? What examples were particularly helpful and why? What was another guess that you had? What clue made you discard that hypothesis? Did you look at examples one-at-a-time or did you consider several at once? How effective was guessing for you? Did any of you have 'a system'? How did it work?"

Association for Supervision and Curriculum Development. (1987). Teaching strategies library: Research-based strategies for teachers. Alexandria, VA: Author.

Dalton, M., & Dobb, J. (1988, April). Teaching thinking: The development of skill in using two models of teaching and model-relevant thinking. Paper presented at the Annual Meeting of the American Education Research Association, San Francisco, CA.

Joyce, B., Weil, M., & Showers, B. (1992). Models of teaching. Englewood Cliffs, NJ: Prentice-Hall, Inc.

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# GAMES and SIMULATIONS STRATEGY

## What are Educational Games and Simulations?

Games and simulations are training devices that mimic reality very closely, but in which the complexity of events can be controlled. The primary difference between a simulation and a game is that a simulation allows the learners to perform exactly as they would in the real world. (Flight simulators and driving simulators are examples.) Games, on the other hand, are designed to have one winner and use the enthusiasm and competitive nature of individuals to help them arrive at a conclusion that is not directly related to the outcome of the game.

## Why Use Games and Simulations?

Learning by doing, on-the-job training, performance assessment, and student teaching are all terms for techniques which attempt to use real world situations to teach and to assess skills and abilities. Such techniques are attractive because the learning is "real" - it is not contrived. However, most real world situations are complex and sometimes dangerous. Games and simulations can be used to make learners' tasks much less complex than they are in the real world, allowing the learners to master the tasks more easily. In addition, games and simulations permit students to learn from self-generated feedback.

## When to Use Games and Simulations

Teachers can use games and simulations when they want to involve students in situations similar to a life experience without the complexities and possible dangers of the real-world.

## How to Use Games and Simulations

### PLANNING

Teachers must judge whether the game or simulation is suitable for their students or when modifications are necessary. Most learners enjoy their roles in a game or simulation; however, developing successful games and simulations is a difficult and time-consuming process. Following are some of Ornstein's guidelines for incorporating games and simulations into teaching:

1. Have an educational objective.
2. Keep this as your purpose: To enable students to understand the nature of a problem and how to solve it.
3. View the game or simulation as an experience for learning content in a short period of time.
4. Relate the game or simulation to the content you wish to teach; clarify this content for the students.
5. Only include significant content variables, instances, or problems in the simulation.
6. Keep rules limited, concise, and clear.
7. Make sure that rules are understood with relative ease by the students, and introduce the rules in a short period of time.
8. Make the motivation for winning clear, and make the objective for how to win clear.
9. Set up the game or simulation in a way that encourages all participants to be involved.
10. Use some sort of evaluation, feedback, or discussion to determine if your objective for using the game or simulation as a teaching tool has been met.

### IMPLEMENTATION

Review the time commitments and room logistics. Often times, games will require more than one class period. Other times, games will only require a few minutes, yet can lead to startling discoveries by students. Typically, the management of games is more difficult than regular classroom management due to the number of items needed for the game. Check to be sure that you have enough copies of rules, enough playing pieces, enough score sheets and other items needed to implement the game.

## DEBRIEFING

Debriefing is critical when performing games and simulations. Often times students miss the intent of the game or simulation and want to continue to focus on one of the following:

- the game rules,
- who won or lost the game,
- who did what to whom during the game, or
- why they didn't perform well during the game.

It is important for the teacher to end the game and to focus discussion on the purpose of the game and tie the game back to the instructional objectives for the course or activity.

The debriefing can ask questions about the use of games as well as help the students focus on the purpose of the game.

Johnson, I. H. (1988). Instructional strategies for technology education: Games and simulations. Mission Hills, CA: Glencoe Publishing Company.

Ornstein, A. C. (1990). Strategies for effective teaching. New York: Harper & Row, Publishers.

# SYNECTICS STRATEGY

- William Gordan

## What is Synectics?

Synectics is a creative problem solving process that uses irrational analogies to assist in the development of creative and critical thinking skills. The term synectics comes from the greek roots, syn, meaning "bringing together" and ectics, meaning "diverse elements." By using the minds seemingly irrational elements of thought, this teaching strategy sparks new ideas, that in the end, generate plausible solutions to real problems.

## Why Use the Synectics Strategy?

Recent literature emphasizes the importance of helping students to think creatively (Gloeckner & Love, 1992; Carnevale, Gainer, & Meltzer, 1992; Scans, 1991). Yet, teachers are not typically trained in ways of teaching creative thinking processes. Synectics gives us a process to help unleash students from their traditional thinking constraints. Equally important, once the synectics strategy has ended, it is highly likely that students will continue connecting ideas in irrational ways to help obtain rational solutions.

## When to Use the Synectics Strategy

Synectics is best used when students are bogged down in routine classroom activities. This creative approach will require a classroom that can operate at high noise level and a chaotic state. In order to use synectics, teachers need to be in a non-directive state of mind. Teachers must be willing to release control to the students in the class during a synectics period. In order to use synectics, teachers need to put the "problem" aside temporarily.

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## DEBRIEFING

It is essential to leave enough time during the class activity to debrief the process of synectics. It is sometimes difficult for teachers and students to spend time reflecting and thinking about the process and teaching strategies used in classroom activities. If, however, we plan to make synectics more than just a one- or two-day activity, the debriefing becomes the essential component. Some questions which you can ask the students to analyze their feelings and thinking processes are as follows:

Which stretching activity was the most difficult for you?

Which stretching exercise was easiest for you to use?

How did the synectics successfully get you to think about the problem in new and different ways?

What are some other ways that you can think of where using synectics would help you solve a problem?

Chiarelott, L. (1990, February). Metaphorical thinking as a thinking skill. Annual Association of Teacher Educators, Las Vegas, NV.

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Joyce, B., Weil, M. & Showers, R. (1992). Models of teaching. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Weaver, T., & Prince, G. (1990). Synectics: It's potential for education. Phi Delta Kappan, 378-388.

# MORAL DEVELOPMENT STRATEGY

- L. Kohlberg

## What is the Moral Development Strategy?

This model is based on two assumptions. First, that individuals differ in their moral and ethical views, and second, that there are different levels of moral development. By using moral dilemmas, this model encourages students to think through societal issues, and at the same time, focus on the issues and stages related to moral development.

## Why Use the Moral Development Strategy?

Without question, the use of moral development in the classroom is a controversial topic. It has been a controversial topic since Socrates and Plato were reemphasized by Dewey in the early 1900s, and then again by Kohlberg in the 1970s, and continues to be a topic of public discussion in the 1990s. Although moral development is a controversial issue, moral and ethical development is nearly always listed as one of the purposes of education. Nearly every state, school district, and individual school emphasize the need for moral development in their purpose of education, mission statements, visions, or district goals.

## When to Use the Moral Development Strategy

Moral development is best used when it fits naturally into the teacher's outcomes for the class. Due to the sensitivity involved in moral development and the potential litigation that can surround the use of moral development, the teacher should use extreme caution in selecting the topics or scenarios to be used with moral development. Avoid the use of locally sensitive issues. Remember that although you are trying to assist your students in understanding the different levels of moral development, some parents may not, themselves, understand levels of moral development. More importantly, some parents will be at a lower level of moral development than their children.



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## How to Use the Moral Development Strategy

Although a variety of models of moral development can be used, this monograph will focus on the use of Kohlberg's model of moral development. Kohlberg has based much of his writing on the work of Plato, Jean Piaget, and John Dewey. As with all issues around moral development, Kohlberg's model is controversial. However, the Kohlberg model has been the focus of decades of research and even critics of the Kohlberg model agree that the model is useful to help individuals think about stages of moral development, as well as a useful tool to help individuals focus on issues around moral dilemmas.

## PLANNING

The first and most important task for a teacher using the Kohlberg model of moral development is to clearly understand Kohlberg's levels of development. Lawrence Kohlberg draws from John Dewey's Theoretical Levels of Moral Development, and the interview, observation, and data gathering techniques described by Jean Piaget. Kohlberg describes three levels of moral development: Preconventional, Conventional, and Postconventional. Within each of these three levels, there are two stages. Therefore, there are six stages involved in the Kohlberg Moral Development Strategy. Kohlberg believes the following three imperial characteristics: 1) each stage is an organized system of thought, individuals are consistent in level of moral judgement, 2) the stages are sequential, under most conditions, movement is always forward, never backward, individuals rarely skip stages; movement is almost always to the next higher stage. 3) the stages are hierarchical, it includes comprehension of the lower stages of thinking. The following chart briefly outlines Kohlberg's stages of moral development.

### A. Preconventional Level

At this level, youth are responsive to cultural rules and labels of good and bad, right and wrong, but they interpret these labels in terms of physical consequences. This level is divided into the following two stages:

1. Punishment and Obedience Orientation - The physical consequences of actions determine the goodness or badness of that action.

2. The Instrumental Relativist Orientation - Correct actions consist of those that satisfy one's own needs and occasionally the needs of others. A useful analogy for understanding this stage is the "you scratch my back, I'll scratch yours."

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